



Mini-POS Ticket Printer

User Guide

SMCWHS-POS

Information furnished by SMC Networks, Inc. (SMC) is believed to be accurate and reliable. However, no responsibility is assumed by SMC for its use, nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SMC. SMC reserves the right to change specifications at any time without notice.

SMC Networks, Inc.
38 Tesla
Irvine, CA 92618.
All rights reserved. Printed in Taiwan

Trademarks:

SMC is a registered trademark; and EliteConnect is a trademark of SMC Networks, Inc. Other product and company names are trademarks or registered trademarks of their respective holders.

LIMITED WARRANTY

Limited Warranty Statement: SMC Networks, Inc. ("SMC") warrants its products to be free from defects in workmanship and materials, under normal use and service, for the applicable warranty term. All SMC products carry a standard 90-day limited warranty from the date of purchase from SMC or its Authorized Reseller. SMC may, at its own discretion, repair or replace any product not operating as warranted with a similar or functionally equivalent product, during the applicable warranty term. SMC will endeavor to repair or replace any product returned under warranty within 30 days of receipt of the product. The standard limited warranty can be upgraded to a Limited Lifetime* warranty by registering new products within 30 days of purchase from SMC or its Authorized Reseller. Registration can be accomplished via the enclosed product registration card or online via the SMC Web site. Failure to register will not affect the standard limited warranty. The Limited Lifetime warranty covers a product during the Life of that Product, which is defined as the period of time during which the product is an "Active" SMC product. A product is considered to be "Active" while it is listed on the current SMC price list. As new technologies emerge, older technologies become obsolete and SMC will, at its discretion, replace an older product in its product line with one that incorporates these newer technologies. At that point, the obsolete product is discontinued and is no longer an "Active" SMC product. A list of discontinued products with their respective dates of discontinuance can be found at:

http://www.smc.com/index.cfm?action=customer_service_warranty.

All products that are replaced become the property of SMC. Replacement products may be either new or reconditioned. Any replaced or repaired product carries either a 30-day limited warranty or the remainder of the initial warranty, whichever is longer. SMC is not responsible for any custom software or firmware, configuration information, or memory data of Customer contained in, stored on, or integrated with any products returned to SMC pursuant to any warranty. Products returned to SMC should have any customer-installed accessory or add-on components, such as expansion modules, removed prior to returning the product for replacement. SMC is not responsible for these items if they are returned with the product. Customers must contact SMC for a Return Material Authorization number prior to returning any product to SMC. Proof of purchase may be required. Any product returned to SMC without a valid Return Material Authorization (RMA) number clearly marked on the outside of the package will be returned to customer at customer's expense. For warranty claims within North America, please call our toll-free customer support number at (800) 762-4968.

Customers are responsible for all shipping charges from their facility to SMC. SMC is responsible for return shipping charges from SMC to customer.

WARRANTIES EXCLUSIVE: IF AN SMC PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT OF THE PRODUCT IN QUESTION, AT SMC'S OPTION. THE

FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SMC NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS. SMC SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD. LIMITATION OF LIABILITY: IN NO EVENT, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), SHALL SMC BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE, LOSS OF BUSINESS, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF SMC OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR THE LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE. NOTHING IN THIS WARRANTY SHALL BE TAKEN TO AFFECT YOUR STATUTORY RIGHTS.

* SMC will provide warranty service for one year following discontinuance from the active SMC price list. Under the limited lifetime warranty, internal and external power supplies, fans, and cables are covered by a standard one-year warranty from date of purchase.

SMC Networks, Inc.
38 Tesla
Irvine, CA 92618

Warranty in EMEA and Asia Pacific:

For details regarding warranty in EMEA and Asia Pacific, please contact your country sales representative. All contact information can be found at www.smc.com

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada - Class B

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils umeriques de Classe B prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

Compliances

FCC - Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

EC Conformance Declaration - Class A

SMC contact for these products in Europe is:

SMC Networks Europe,
Edificio Conata II,
Calle Fructuós Gelabert 6-8, 2o, 4a,
08970 - Sant Joan Despí,
Barcelona, Spain.

This information technology equipment complies with the requirements of the Council Directive 89/336/EEC on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility, and the amendments in the Council Directive 92/31/EEC, 93/68/EEC. For the evaluation of the compliance with these Directives, the following standards were applied:

RFI Emission: o Limit class A according to EN 55022:1998 + A1:2000

- Limit class A for harmonic current emission according to EN 61000-3-2/2000
- Limitation of voltage fluctuation and flicker in low-voltage supply system according to EN 61000-3-3/1995 + A1: 2001

Immunity: • Product family standard according to EN 55024:1998 + A1: 2001

- Electrostatic Discharge according to EN 61000-4-2:1995 + A1:2001
(Contact Discharge: ± 4 kV, Air Discharge: ± 8 kV)
- Radio-frequency electromagnetic field according to EN 61000-4-3:1995

- +A1: 2001 (80 - 1000 MHz with 1 kHz AM 80% Modulation: 3 V/m)
- Electrical fast transient/burst according to EN 61000-4-4:1995 + A1: 2001 (AC/DC power supply: ± 1 kV, Data/Signal lines: ± 0.5 kV)
- Surge immunity test according to EN 61000-4-5:1995 + A1: 2001 (AC/DC Line to Line: ± 1 kV, AC/DC Line to Earth: ± 2 kV)
- Immunity to conducted disturbances, Induced by radio-frequency fields: EN 61000-4-6:1996 + A1: 2001 (0.15 - 80 MHz with 1 kHz AM 80% Modulation: 3 V/m)
- Power frequency magnetic field immunity test according to EN 61000-4-8:1993 + A1: 2001 (1 A/m at frequency 50 Hz)
- Voltage dips, short interruptions and voltage variations immunity test according to EN 61000-4-11:1994 + A1: 2001 (>95% Reduction @10 ms, 30% Reduction @500 ms, >95% Reduction @5000 ms)

LVD: • EN 60950 (A1/1992; A2/1993; A3/1993; A4/1995; A11/1997)

Industry Canada - Class A

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.

Wichtige Sicherheitshinweise (Germany)

1. Bitte lesen Sie diese Hinweise sorgfältig durch.
2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder
Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlußsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann.
Es sollte auch nichts auf der Leitung abgestellt werden.
10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.

11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
13. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
 - a. Netzkabel oder Netzstecker sind beschädigt.
 - b. Flüssigkeit ist in das Gerät eingedrungen.
 - c. Das Gerät war Feuchtigkeit ausgesetzt.
 - d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
 - f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
15. Zum Netzanschluß dieses Gerätes ist eine geprüfte Leitung zu verwenden. Für einen Nennstrom bis 6A und einem Gerätegewicht größer 3kg ist eine Leitung nicht leichter als H05VV-F, 3G, 0,75mm² einzusetzen.

Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70dB(A) oder weniger.

EliteConnect™ Mini-POS Ticket Printer

Table of Contents

1. Unpacking	9
A. Standard Package	9
2. Indicators and Connections	9
A. Front Panel of the Printer	9
B. Rear View of the Printer	9
C. Loading Paper Roll	10
3. Self Test of the Printer	10
4. Using the Printer	11
A. Connecting the Mini-POS Ticket Printer to the Wireless Hotspot Gateway	11
B. Configuring the Printer for Ticket Printing	12
5. Specifications	13
A. Physical Characteristics	13
B. Printer Font	13
C. Print Paper	13
6. Pinouts	14
A. Serial Connection	14
B. Parallel Connection	14
C. Power Input	15
D. Cash Drawer Port	15
7. Command Set	16

1. Unpacking

A. Standard Package

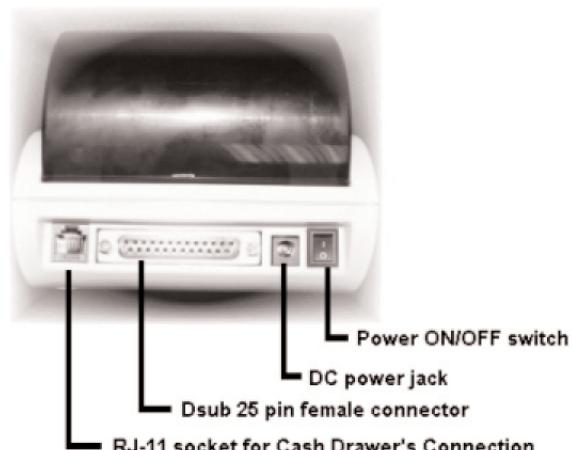
1) EliteConnect™ Mini-POS Ticket Printer	1 piece
2) Control Keypad	1 piece
3) User's Guide	1 piece
4) Y Cable	1 piece
5) Printer Cable	1 piece
6) Power Adapter (7.5 VDC output)	1 piece
7) Power Cord	1 piece
8) Paper Roll	1 piece

2. Indicators and Connections

A. Front Panel of the Printer

Power Indicator	Shows power on/off status
Error Indicator	Shows error status: On: Printer is on line Off: Printer is off line Blinking: 160 ms interval - out of paper 300 ms interval - print head overheated (Wait till print head cools off then resume printing. The error indicator stops blinking when the temperature drops below 40°C.)
Feed Button	Advances paper roll (the button is inoperable when error indicator blinks)
Online Button	Switches printer online or offline

B. Rear Panel of the Printer



C. Loading Paper Roll



1) Open the top cover by lifting firmly from the indented hold spaces located on the front left and right side of the cover.

- 2) Place the paper roll in the paper compartment. Make sure that the leading end of the paper roll is fed from the bottom of the roll. Pull the leading end of the paper roll past the front panel of the printer.

3) Close the top cover and make sure the roller sits firmly on top of the leading end of the paper roll.

3. Self Test of the Printer

- Power up the printer while pressing and holding down the Online button. Power Indicator comes on and Error Indicator goes out.
- Release the Online button. The printer prints out a successful test page.
- Error Indicator turns back on.

SELFTEST

Interface: Centronics

!"#\$%&' ()*+, -./0123456789:;?@

@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^

`abcdefghijklmnopqrstuvwxyz{|}`

國際一二級字庫

SELFTEST OK!

4. Using the Printer

A. Connecting the Mini-POS Ticket Printer to the Wireless Hotspot Gateway

- Locate an optimum location for the printer. In most instances, the best place for the printer is close to the keypad and Hotspot Gateway.
- Using the Y-type cable provided (as shown in Figure 1), connect the 7-pin serial (PS/2) cable end to the keypad, shown as Figure 2.



Fig. 1. Y-cable



Fig. 2. Connect Y-cable to keypad.

- Then, connect the 9-pin (female) cable end to the Hotspot Gateway serial port, shown as Figure 3.



Fig. 3. Connect Y-cable to Hotspot Gateway serial port.

- Using the printer cable provided, as shown in Figure 4, connect the 25-pin cable end of the printer cable to the printer, shown as Figure 5.



Fig. 4. Printer cable



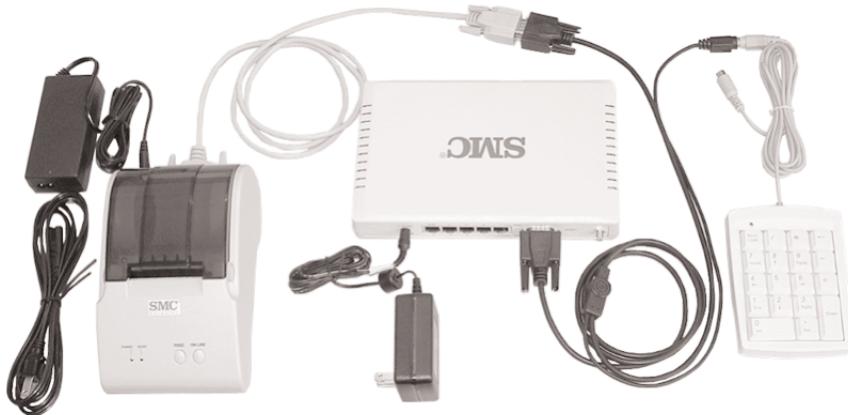
Fig. 5. Connect 25-pin cable to the printer.

- Then, connect the 9-pin end of the cable to the Y-type cable's 9-pin (male) connector, shown in Figure 6.



Fig. 6. Connect the printer cable to the Y-cable.

- Connect the AC power adapter to the printer's power socket and the other end to the electrical outlet.



NOTE: Use of a different adapter may result in product damage.

B. Configuring the Wireless Hotspot Gateway and Printer for Ticket Printing

Detailed instructions can be found in the EliteConnect 2.4GHz 802.11g Wireless Hotspot Gateway User Guide. **Please see sections 1.8.6 to 1.8.6.3**

5. Specifications

A. Physical Characteristics

Print Method	Direct thermal
Paper Width	57.5 mm \pm 0.5 mm
Effective Print Width	48 mm
Print Speed	Approx. 52 mm/sec or 14 lines/sec
Print Head	Print density: 384 dots/line or 8 dots/mm Print dot space: 0.125 mm Print life: 50 km Overheat suspension protection
Interface (Serial)	Dsub 25-pin female connector 9600 bps, none, 8 bits, 1 stop bit RTS/CTS and Xon/Xoff protocol
Interface (Parallel)	Dsub 25-pin male connector 8 bits, BUSY protocol
Cash Drawer Port	DC 12V/1A, 6-wire RJ-11 socket
Net Weight	740 g (without cable and paper roll)
Dimensions	185 mm (L) x 114 mm (W) x 90 mm (H)
Operating Environment	Temperature: 0 - 50°C Humidity: 10 - 80 RH
Power Input	DC 8V/3.5A

B. Printer Font

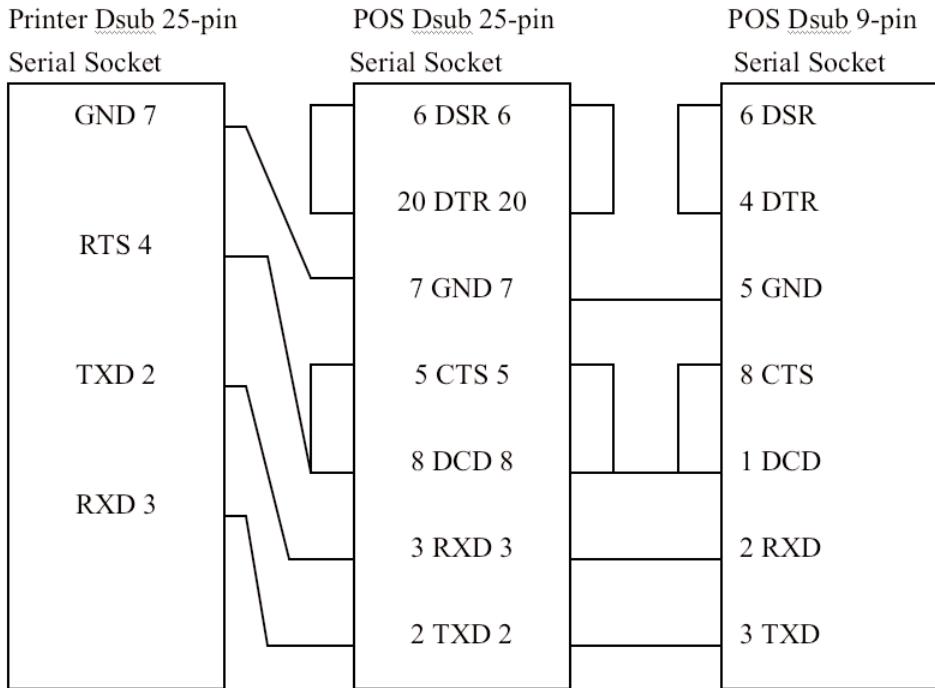
ASCII Character	12 x 24 dots, 1.25 mm (W) x 3.00 mm (H)
Print Commands	ESC/POS

C. Print Paper

Type	Thermal
Model Number	TF50KS-E (Japan Paper Co. Ltd.) AF50KS-E (JUJO Thermal)
Parameters	Width: 57.5 \pm 0.5 mm Max diameter: 50 mm Thickness: 53-60 g/m ²

6. Pinouts

A. Serial Connection



B. Parallel Connection

Pin#	Signal	Pin#	Signal
1	/STB	15	N/C
2	DATA1	16	N/C
3	DATA2	17	N/C
4	DATA3	18~25	GND
5	DATA4		
6	DATA5		
7	DATA6		
8	DATA7		
9	DATA8		
10	/ACK		
11	BUSY		
12	GND		
13	SEL		
14	/ERR		

C. Power Input



PRP-058 requires DC 7.5V/2.0A power.

D. Cash Drawer Port

Pin#	Signal	Description
1.	N/C	
2.	Drive Signal	Cash drawer drive signal (output)
3.	Drive Signal	Cash drawer drive signal (output)
4.	DC +12V	Output power
5.	DC +12V	Output power
6.	N/C	

7. Command Set

No.	Command	Hex Code	Function Description
1	LF	0A	Prints out buffer and advances one line
2	ESC J n	1B 4A n 18<=n<=FF	Prints out buffer and advances n lines
3	ESC 2	1B 32	Sets line space to 1/6 inch or 30 dots
4	ESC 3 n	1B 33 n 0B<=n<=FF	Sets line space to n dots, n=30 default
5	ESC ! n	1B 21 n n=00, 10, 20, 30	Sets font size, n=00 default n=10 double height n=20 double width n=30 double height and double width (This command gets overridden by ESC DC4 command.)
6	ESC SO	1B 0E	Sets double width printing for all characters subsequent to the command in a line (This command gets overridden by LF, CR, or ESC DC4 command.)
7	ESC DC4	1B 14	Resets to default font size
8	ESC c 5 n	1B 63 35 n 00<=n<=01	Enables Feed & Online buttons n=00 default Disables Feed & Online buttons n=01 (The buttons get enabled automatically when paper roll being loaded.)
9	ESC * m n1 n2 d1...dx	1B 2A m n1 n2 d1...dx m=01, 21 00<=n1<=FF n2=00, 01 00<=d<=FF	Sets dot matrix m=01 8 dots double density m=21 24 dots double density n1+256*n2 total number of horizontal dots d=1 to print the dot d=0 not to print the dot x denotes the data number x=n1+256*n2 when m=01 x=(n1+256*n2)*3 when m=21
10	ESC @	1B 40	Initializes printer and sets all defaults
11	ESC p m n1 n2	1B 70 m n1 n2 m=00 01<=n1<=n2 n1<=n2<FF	Controls cash drawer n1 is the time for attracting micro-switch n2 is the time for starting next attractive command, attractive time interval=n1*2ms, response time interval=n2*2ms

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)

(800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481

From Europe : Contact details can be found on

www.smc-europe.com or www.smc.com

INTERNET**E-mail addresses:**

techsupport@smc.com

european.techsupport@smc-europe.com

Driver updates:

http://www.smc.com/index.cfm?action=tech_support_drivers_downloads

World Wide Web:

<http://www.smc.com/>

<http://www.smc-europe.com/>

For Literature or Advertising Response, Call:

U.S.A. and Canada:	(800) SMC-4-YOU	Fax (949) 679-1481
Spain:	34-91-352-00-40	Fax 34-93-477-3774
UK:	44 (0) 1932 866553	Fax 44 (0) 118 974 8701
France:	33 (0) 41 38 32 32	Fax 33 (0) 41 38 01 58
Italy:	39 (0) 3355708602	Fax 39 02 739 14 17
Benelux:	31 33 455 72 88	Fax 31 33 455 73 30
Central Europe:	49 (0) 89 92861-0	Fax 49 (0) 89 92861-230
Nordic:	46 (0) 868 70700	Fax 46 (0) 887 62 62
Eastern Europe:	34 -93-477-4920	Fax 34 93 477 3774
Sub Saharan Africa:	216-712-36616	Fax 216-71751415
North West Africa:	34 93 477 4920	Fax 34 93 477 3774
CIS:	7 (095) 7893573	Fax 7 (095) 789 357
PRC:	86-10-6235-4958	Fax 86-10-6235-4962
Taiwan:	886-2-87978006	Fax 886-2-87976288
Asia Pacific:	(65) 238 6556	Fax (65) 238 6466
Korea:	82-2-553-0860	Fax 82-2-553-7202
Japan:	81-45-224-2332	Fax 81-45-224-2331
Australia:	61-2-8875-7887	Fax 61-2-8875-7777
India:	91-22-8204437	Fax 91-22-8204443

If you are looking for further contact information, please visit www.smc.com or www.smc-europe.com.

SMC[®]

Networks

38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000

Model Number: SMCWHS-POS